

Ref

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

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OPINION 341

Addition to the *Official List of Generic Names in Zoology*
of the generic names *Anguina* Scopoli, 1777, and *Tylenchus*
Bastian, 1865 (Class Nematoda) (*Opinion* supplementary
to *Opinion* 160)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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OPINION 341

ADDITION TO THE "OFFICIAL LIST OF GENERIC
NAMES IN ZOOLOGY" OF THE GENERIC NAMES
"ANGUINA" SCOPOLI, 1777, AND "TYLENCHUS"
BASTIAN, 1865 (CLASS NEMATODA) ("OPINION"
SUPPLEMENTARY TO "OPINION" 160)

RULING :—(1) The Interim Ruling given in *Opinion* 160 in regard to the generic name *Anguina* Scopoli, 1777, is hereby cancelled and the Rulings (2) to (5) below are hereby substituted therefor.

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Nos. 847 and 848 respectively :—(a) *Anguina* Scopoli, 1777 (gender : feminine) (type species, by selection by Chitwood (1935) ; *Vibrio tritici* Steinbuch, 1799) ; (b) *Tylenchus* Bastian, 1865 (gender : masculine) (type species, by selection by Bastian, in Stiles & Hassall (1905) : *Tylenchus davainei* (correction of *davainii*) Bastian, 1865).

(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Nos. 454 and 455 respectively :—(a) *tritici* Steinbuch, 1799, as published in the combination *Vibrio tritici* (specific name of type species of *Anguina* Scopoli, 1777) ; (b) *davainei* (correction of *davainii*) Bastian, 1865, as published in the combination *Tylenchus davainii* (specific name of type species of *Tylenchus* Bastian, 1865).

(4) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Nos. 235 and 236 respectively :—(a) *Anguillulina* Gervais & van Beneden, 1859 (a junior objective synonym of *Anguina* Scopoli, 1777, the two genera having the same nominal species as type species) ; (b) *Tylelenchus* Bastian, 1865 (an Invalid Original Spelling of *Tylenchus* Bastian, 1865).

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(5) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name No. 122 :—*davainii* Bastian, 1865, as published in the combination *Tylenchus davainii* (an Invalid Original Spelling of *davainei*).

I.—THE STATEMENT OF THE CASE

The International Commission at its Session held at Lisbon in 1935 was unable to give a definite Ruling on an application which had been submitted to it jointly by Dr. H. G. Chitwood and another specialist of the Bureau of Animal Industry, U.S. Department of Agriculture and by three specialists of the Bureau of Plant Industry of the same Department, in regard to the status of the generic name *Anguina* Scopoli, 1777, owing (a) to doubts as to the interpretation of Proviso (a) to Article 25, in relation to the meaning to be attached to the expression "nomenclature binaire" which at that time appeared in that Proviso, and (b) to doubts as to whether in the work entitled *Introductio ad Historiam naturalem*, in which the foregoing generic name had been published, Scopoli had complied with the requirements of the foregoing Article. At that stage therefore it was only possible for the Commission to give an Interim Ruling explaining why no substantive Ruling was possible. This Interim Ruling was later embodied in *Opinion* 160 which was published in 1945 (*Ops. Decls. int. Comm. zool. Nomencl.* 2 : 291—306).¹ The question of the interpretation involved in the present case was settled by the amendment of Article 25 by the Thirteenth International Congress of Zoology at Paris in 1948, while the individual

¹ The Interim Ruling given in *Opinion* 160 was in the following terms :—

For so long as generic names published by authors using a binary, though not a binominal, system of nomenclature are recognised as complying with the requirements of Article 25 of the International Code, the generic names published by Scopoli in 1777 in his *Introductio ad Historiam naturalem* are to be accepted as available nomenclatorially, but the position will need to be re-examined if later it is decided to reject generic names published by authors not applying the binominal system. No case has been established for the suspension of the rules for the purpose either of invalidating *Anguina* Scopoli, 1777, and validating *Anguillulina* Gervais and van Beneden, 1859, or of invalidating both *Anguina* Scopoli, 1777, and *Anguillulina* Gervais and van Beneden, 1859, and validating *Tylenchus* Bastian, 1865 (Class Nematoda).

question whether in the *Introductio* of 1777 Scopoli had complied with the requirements of Article 25, as amended by the Paris Congress, was laid before the Commission in a note by the Secretary in 1951. This note was published on 28th September 1951 (Hemming, 1951, *Bull. zool. Nomencl.* 6 : 122—125). At the same time Mr. Hemming prepared the following note recalling the history of the present case and appealing to specialists for information regarding the names currently used for the genera concerned and the action which, in their view, it was desirable that the Commission should take in regard to the names *Anguina* Scopoli, 1777, and *Tylenchus* Bastian, 1865 :—

On the question whether it is desirable that the name “*Anguina*” Scopoli, 1777 (Class Nematoda) should be placed on the “*Official List of Generic Names in Zoology*” in preference to such names as “*Anguillulina*” Gervais & Beneden, 1859, or “*Tylenchus*” Bastian, 1865 (a case possibly involving the use of the Plenary Powers) : appeal to specialists for advice

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

1. At its Session held in Lisbon in 1935 (Lisbon Session, 4th Meeting, Conclusion 11) the International Commission on Zoological Nomenclature had under consideration an application submitted by Dr. H. G. Chitwood and other specialists on the staff of the United States Department of Agriculture for the official recognition of the generic name *Anguina* Scopoli, 1777, for the Nematode species then (as the applicants stated) “known as *Tylenchus tritici* (= *Anguillulina tritici*)”, together with comments received from various specialists, either for or against the application submitted (1943, *Bull. zool. Nomencl.* 1 : 37—38).

2. The problem so submitted raised two issues, the first, general in character (namely, the meaning to be attached to Proviso (b) to Article 25) and, second, the question of the name which it was desirable should be accepted for the Nematode genus in question. The discussion of this latter question was obscured in the papers then before the Commission by reason of the divergent views expressed not on that issue but on the acceptability under Article 25 of names in Scopoli's *Introductio* of 1777 and therefore on the availability of the name *Anguina* Scopoli, 1777. Accordingly, the International Commission did not feel able at that time to do more than to rule that, pending a decision by the Congress as to the interpretation of the expression

"nomenclature binaire", the name *Anguina* Scopoli, 1777, must be accepted as complying with the requirements of Article 25; the Commission added that "no case had been established" for the use of the Plenary Powers to validate the name *Tylenchus* Bastian, 1865. These decisions were later embodied in the Commission's *Opinion* 160 (1945, *Op. Decl. int. Comm. zool. Nomencl.* 2 : 291—306). The Commission recognised that the foregoing decisions were both incomplete and provisional in character and expressly placed on record its view that it would be necessary to review the position if later the Congress were to reject the then current ruling (i.e., the ruling in *Opinion* 20) regarding the availability of names published by authors who adopted a so-called "binary" but not a binominal system of nomenclature.

3. At its meeting held in Paris in 1948 the International Congress of Zoology approved a proposal that the expression "nomenclature binominale" should be substituted for the expression "nomenclature binaire" in Article 25 (1950, *Bull. zool. Nomencl.* 4 : 63—66), thereby eliminating one of the factors which at Lisbon had made it impossible to reach a final conclusion in regard to the status of the name *Anguina* Scopoli. At the same time the International Commission gave a ruling (1950, *Bull. zool. Nomencl.* 4 : 309—310) that the names published in Brünnich's *Zoologiae Fundamenta* of 1771 (a work indistinguishable in character from Scopoli's *Introductio* of 1777, both being books concerned with zoological classification down to, but not including, the species level) are available names. In the same Session the International Commission put on record its intention of completing previously rendered *Opinions* where those *Opinions* did not cover the whole field involved (1950, *Bull. zool. Nomencl.* 4 : 355). Finally, the Congress directed the Commission in future to place on the *Official List of Generic Names in Zoology* every available generic name (with a note of the type species of the genus concerned) on which a decision of any kind was given by the Commission (1950, *Bull. zool. Nomencl.* 4 : 268), and on the *Official List of Specific Trivial Names in Zoology*, the trivial name of the type species of every genus placed on the *Official List of Generic Names*, except where that trivial name was not the oldest available such name for the species concerned, in which case the oldest available trivial name was to be stabilised in this way (1950, *Bull. zool. Nomencl.* 4 : 270).

4. In the light of the decision taken in 1948 on the status of new generic names published in 1771 in Brünnich's *Zoologiae Fundamenta*, the International Commission on Zoological Nomenclature is now being asked to give a ruling that new generic names published in 1777 in Scopoli's *Introductio* are available names under Article 25 (Application Z.N.(S.) 587), it being understood that the Commission will give sympathetic consideration to applications for the suppression of individual names published in the *Introductio*, where those names are not in current use and where the enforced resurrection of such names

would lead to confusion by upsetting well-established names of later date.

5. Immediately a decision is taken by the International Commission on the foregoing question, it will be possible for it to take decisions also on the other matters left unsettled in *Opinion* 160. If the International Commission approve the recommendation submitted to it in regard to the status of names in Scopoli's *Introductio*, it will be necessary, either :—

- (1) to place (a) the generic name *Anguina* Scopoli, 1777 (with a note of its type species) on the *Official List of Generic Names in Zoology*, and (b) the trivial name of the type species of that genus, if that name is the oldest available trivial name for that species, on the *Official List of Specific Trivial Names in Zoology* ;

or

- (2) to take a substantive decision on the question (on which it was considered in 1935 that no case had then been established), whether it is desirable that the name *Anguina* Scopoli, 1777, should be suppressed under the Plenary Powers for the purpose of validating *Tylenchus* Bastian, 1865, or whatever other name is currently used for the genus in question.

6. Before taking into consideration the relative merits of the alternative courses outlined above, the International Commission will need to be furnished by specialists in the Nematoda with information regarding the name currently used for the genus concerned and, if there is still diversity of practice, the proportions in which the names concerned are used both by specialists in the Nematoda and also generally in biological, non-taxonomic literature. In this connection, the Commission will take full account of the views by leading specialists recorded in *Opinion* 160, but, as it is now over fifteen years since those comments were written, it will be necessary to ascertain whether, during the interval that has since elapsed, the position has changed in any, and, if so, in what way. It will be very helpful if at the same time specialists will be so good as to inform the Commission whether they are of the opinion that the strict application of the normal Rules in this case would lead to no unsatisfactory results or, alternatively, whether they are of the opinion that confusion would result from the strict application of the Rules and, in the latter event, to indicate what action is recommended.

7. It is desired to reach a final decision on this long-outstanding case with as little further delay as possible. It will be particularly appreciated, therefore, if specialists will be so good as to furnish the Commission as soon as possible with their advice on the relative merits of the alternative courses set out in paragraph 5 above. All such comments should be marked "Z.N.(S.) 588" and addressed to

the Secretary to the Commission (28 Park Village East, Regent's Park, London, N.W.1, England).

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Immediately upon the receipt of Mr. Hemming's application, the problem of the status of the generic name *Anguina* Scopoli, 1777, was allotted the Registered Number Z.N.(S.) 588.

3. Publication of the present application : The present application was immediately sent to the printer and was published on 28th September 1951 in Part 4 of volume 6 of the *Bulletin of Zoological Nomenclature* (Hemming, 1951, *Bull. zool. Nomencl.* 6 : 125—128).

4. Issue of Public Notices : At the time of the publication of the present application it appeared unlikely that the Commission would find it necessary or desirable to use its Plenary Powers in the present case, but, in order to provide against this contingency and thus to put the Commission in a position to reach a decision without delay at the end of the prescribed waiting period following the publication of the present application in the *Bulletin of Zoological Nomenclature*, it was decided forthwith to give Public Notice under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 51—56), of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case. Accordingly, on 28th September 1951, such Public Notice was given in Part 4 of volume 6 of the *Bulletin of Zoological Nomenclature* (the Part in which Mr. Hemming's application was published) and also to the other prescribed serial publications. In addition such Notice was given also to certain other general zoological serial publications.

5. Advice received from specialists : The appeal for advice from specialists contained in Mr. Hemming's application elicited communications from the following specialists : (1) B. G. Chitwood (*The Catholic University of America, Washington, D.C., U.S.A.*), whom Mr. Hemming had consulted shortly before the publication of the present application in view of the fact that he was the specialist by whom the request for a Ruling on the name *Anguina* Scopoli had originally been submitted (letter dated 17th September 1951) ; (2) M. W. Allen, D. J. Raski and S. A. Sher (*University of California, Division of Entomology and Parasitology, Berkeley, California, U.S.A.*) (joint letter dated 16th April 1952) ; (3) Ellsworth C. Dougherty (*University of California, Department of Zoology, Berkeley, California, U.S.A.*), who under cover of a letter dated 14th May 1953 forwarded a considered memorandum prepared jointly by himself and by the three specialists cited in (2) above. The communications so received are reproduced in the immediately following paragraphs.

6. Comment received from Dr. B. G. Chitwood (The Catholic University of America, Washington, D.C., U.S.A.) : On 17th September 1951 Dr. B. G. Chitwood (*The Catholic University of America, Washington, D.C., U.S.A.*) addressed the following letter to the Commission setting out his views as to the action which, in his view, it was desirable that it should take in this case :—

Since the original submission of the question on *Anguina* to the Commission many changes have taken place in nematode taxonomy.

Tylenchus is now generally recognized for a group of species which does not include the type of *Anguina*.

Filipjev originated this concept and we followed it in this country. Goodey has recently accepted *Anguina* with *Anguillulina* as a synonym. This being the case I feel workers in the field will now unanimously accept *Anguina* as valid.

Therefore, I now feel validation of *Anguina* with *A. tritici* as type would be the best service the Commission could render.

7. Comment received jointly from Drs. M. W. Allen, D. J. Raski and S. A. Sher (Department of Entomology and Parasitology, University of California, Berkeley, California, U.S.A.) : On

16th April 1952 Drs. M. W. Allen, D. J. Raski and S. A. Sher (*Department of Entomology and Parasitology, University of California, Berkeley, California, U.S.A.*) addressed the following joint letter setting out the action which they recommend that the Commission should take in the present case :—

In our opinion the name *Anguina* Scopoli, 1777, should be placed on the *Official List of Generic Names in Zoology*, in preference to the name *Anguillulina* Gervais and Beneden, 1859.

The name *Tylenchus* Bastian, 1865, should also be placed on the *Official List*. The type species of this genus (*T. davainii* Bastian, 1865) clearly represents forms differing from those belonging to the genus *Anguina* Scopoli, 1777. There is now agreement among nematologists on these questions.

8. Comment received jointly from Dr. Ellsworth C. Dougherty (Department of Zoology) and Drs. M. W. Allen, D. J. Raski and S. A. Sher (Department of Entomology and Parasitology, University of California, Berkeley, California, U.S.A.) : In response for a request for further information in regard to certain aspects of the present case addressed by the Secretary to Dr. M. W. Allen, Dr. Ellsworth C. Dougherty (*Department of Zoology, University of California, Berkeley, California, U.S.A.*) communicated to the Commission on 14th May 1953 the following memorandum prepared jointly by Dr. M. W. Allen and his colleagues in the Department of Entomology and Parasitology and himself :—

**Proposal that “*Anguina*” Scopoli, 1777, and “*Tylenchus*” Bastian, 1865 (Class Nematoda, Order Tylenchida) be added to the
“*Official List of Generic Names in Zoology*”**

By ELLSWORTH C. DOUGHERTY

(*Department of Zoology, University of California, Berkeley*)

and

M. W. ALLEN, D. J. RASKI, and S. A. SHER

(*Department of Entomology and Parasitology,
University of California, Berkeley*)

Secretary Hemming (1951b) has asked for advice on the question of adding the name *Anguina* Scopoli, 1777, to the *Official List of Generic*

Names in Zoology in preference to such names as *Anguillulina* Gervais and van Beneden, 1859, and *Tylenchus* Bastian, 1865. In our opinion these names refer not to one, but to two separate taxonomic genera, which include nematode species of considerable importance as plant parasites. It is therefore highly desirable that the generic nomenclature involved be clarified and that names be secured by their incorporation into the *Official List* by whatever action on the part of the International Commission appears necessary or desirable.

2. We have examined the pertinent literature, including all papers cited herein. The essential particulars of the three nominal genera under consideration are as follows :

A. "Anguina " Scopoli, 1777

3. This genus was erected by Scopoli (1777 : 374) without reference to a species by scientific name. However, the genus as characterized by Scopoli obviously referred only to the wheat eelworm, which was subsequently named by Steinbuch (1799 : 251) as *Vibrio tritici* under conditions that clearly satisfy the *Règles Internationales*. Steinbuch referred to earlier authors who had observed the worm, but had not given it a separate specific name. (For example, Linnaeus (1767) discussed it under his composite species *Chaos ustilago*.) Baylis and Daubney (1926 : 65) listed *Anguina* as a synonym of *Anguillulina* Gervais and van Beneden, 1859, without selecting the type of the former. Chitwood (1935 : 53) pointed out that only *Vibrio tritici* Steinbuch, 1799, fits the original description of *Anguina* and accordingly selected this species as type. He further pointed out that *Anguina* has priority over *Anguillulina*. His arguments are given at length in *Opinion* 160 of the International Commission (1945 : 293—296).

4. Various authors (see *Opinion* 160) have argued that Scopoli was a non-binominal author because the work in which *Anguina* was established went down, for the most part, only to the generic level. However, as has been shown by Hemming (1951a), Scopoli must be regarded as a binominal author in the sense of Article 25, proviso (b), of the *Règles*, as amended at Paris in 1948². Therefore, there is no basis for rejecting *Anguina* on such grounds.

5. Although Chitwood referred to *Vibrio tritici* as type of *Anguina*, he did not actually establish the combination *Anguina tritici*. This was subsequently done by Filip'ev (1936 : 82). The present *Règles* (Article 23) are not clear as to the manner in which combinations should be credited in such cases. We are therefore unable to decide whether the wheat eelworm is now correctly to be known, in its most

² This question has since been settled by the International Commission in this sense. See paragraph 9 of the present *Opinion*.

complete form, as *Anguina tritici* (Steinbuch, 1799) Chitwood, 1935, or *Anguina tritici* (Steinbuch, 1799) Filip'ev, 1936.

B. "Anguillulina" Gervais and van Beneden, 1859

6. This genus was erected by Gervais and van Beneden (1859 : 101), without designation or indication of type, for two species, *Vibrio tritici* Steinbuch, 1799, and *Anguillula dipsaci* Kühn, 1857. Stiles and Hassall (1905 : 86, 146) remarked that *V. tritici* was "probably" type of *Anguillulina*, but we feel that, "rigidly construed" under the *Règles* (Article 30, rule (g)), this cannot be accepted as type selection. (Nevertheless, this is a point on which the International Commission might rule otherwise.)

7. Type fixation was definitely accomplished by Baylis and Daubney (1926 : 66), who selected *Vibrio tritici*. It therefore follows that the nominal genus *Anguillulina* is an objective synonym of the nominal genus *Anguina*, since both have the same species as type.

C. "Tylenchus" Bastian, 1865

8. This genus was established, without designation or indication of type, by Bastian (1865 : 94, 125) for 6 nominal species—*Tylenchus davainii* Bastian, 1865, *Vibrio tritici* Bauer, 1923 [=Steinbuch, 1799], *Tylenchus terricola* Bastian, 1865, *Tylenchus obtusus* Bastian, 1865, *Anguillula dipsaci* Kühn, 1857, and *Tylenchus agrostidis* Bastian, 1865. In Bastian's paper two spellings were used—*Tylelenchus* (: 82, 83, 94) and *Tylenchus* (: 125—128). It is obvious from the derivation given for the genus (: 125) that the spelling *Tylelenchus* was an error. It seems appropriate, therefore, to accept the spelling *Tylenchus* as the correct one, even though the spelling *Tylelenchus* has priority by page precedence, having even been used in connection with a brief but adequate generic diagnosis (: 95). However, inasmuch as the entire question of emendations is now *sub judice* by the International Commission (see Hemming, 1952)³, it might therefore be appropriate to secure *Tylenchus* by the specific suppression of *Tylelenchus* under the International Commission's Plenary Powers.

9. Type fixation for *Tylenchus* was accomplished by Bastian in a letter to Stiles and Hassall (1905 : 147) as *Tylenchus davainii*, an originally included species. The origin of the trivial name *davainii* was not specifically given by Bastian, but it is obvious from the content of his paper that it was intended as a patronymic honoring the parasitologist, Davaine. De Man (1880, : 74) emended it to *davainei*, and, although this correction has not been generally followed, it is

³ In the light of the review by the International Commission here referred to, the provision (Article 19) in the *Règles* relating to the emendation of names was completely revised by the Fourteenth International Congress of Zoology, Copenhagen, 1953 (see 1953, *Copenhagen Decisions zool. Nomencl.* : 43—46, Decisions 70—76).

required by the interpretation of Article 14 given in the Paris revision of the *Règles* in 1948 (see 1950, *Bull. zool. Nomencl.* **4** : 68).⁴

D. Recommendations

10. Since the arguments in the case of *Anguina et al.* were submitted to the International Commission (see *Opinion* 160), knowledge of the tylenchide nematodes, or tylenchs, has evolved considerably. Workers such as Filip'ev (1936) and Thorne (1949) have greatly refined the classification of these forms such that now several families and many genera in what a number of authors regard as an order Tylenchida Thorne, 1949 (: 37), have come to be recognized in the place of a relatively few genera in a family TYLENCHIDAE Micoletzley, 1922 (: 108—OR ANGUILLULINIDAE Baylis and Daubney, 1926 : 65). It is now generally accepted—for example, by such authorities as Goodey in his monograph on soil and fresh water nematodes (1951)—that the species originally named *Vibrio tritici* (type of the nominal genera *Anguina* and *Anguillulina*) and *Tylenchus davainei* (type of the nominal genus *Tylenchus*) belong to separate taxonomic genera. Therefore there is no longer any reason for suppressing either *Anguina* or *Anguillulina*, or both, in favour of *Tylenchus* as was suggested by certain of the specialists quoted in *Opinion* 160.

11. The question of *Anguina* vs. *Anguillulina* has essentially been resolved by the passage of time. Several outstanding authorities (Thorne, 1949 ; Chitwood, 1950 ; Goodey, 1951) have elected to follow priority in this case and sink *Anguillulina* Gervais and van Beneden, 1859, as a synonym of *Anguina* Scopoli, 1777. We believe that such action represents the one that the International Commission should recognize.

12. It is, therefore, our recommendation that the following names be added to the *Official List of Generic Names in Zoology* :

Anguina Scopoli, 1777 (gender : feminine), with type *Vibrio tritici* Steinbuch, 1799 (syn. *Anguina tritici* (Steinbuch, 1777) Chitwood, 1935, or Filip'ev, 1936) as selected by Chitwood (1935)

Tylenchus Bastian, 1865 (gender : masculine), with type *Tylenchus davainei* Bastian, 1865, emend. de Man, 1880, as selected by Bastian in Stiles and Hassall (1905)

13. In order that all doubt be dispelled as regards the name *Tylenchus*, we recommend that the International Commission consider suppressing, under their Plenary Powers, the nominal genus *Tylelenchus* Bastian, 1865.

⁴ The decision by the Paris Congress here referred to was confirmed by the Fourteenth International Congress of Zoology, Copenhagen, 1953, when that Congress reviewed the provisions of Article 14 of the *Règles* (1953, *Copenhagen Decisions zool. Nomencl.* : 51—52, Decision 86).

14. We further recommend that the following names be added to the *Official Index of Rejected and Invalid Generic Names in Zoology* :

Anguillulina Gervais and van Beneden, 1859, with type *Vibrio tritici* Steinbuch, 1799, as selected by Baylis and Daubney (1926).

Tylenchus Bastian, 1865, with type *Tylenchus davainei* Bastian, 1865, emend. de Man, 1880, by operation of Article 30, rule (g) (i.e., the type of *Tylenchus* automatically becomes the type of *Tylenchus*).

15. And finally we recommend that the species *Vibrio tritici* Steinbuch, 1799, and *Tylenchus davainei* Bastian, 1865, emend. de Man, 1880, be added to the *Official List of Specific Trivial Names in Zoology*. Type material of neither of these species is known to us to exist.

References

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9. Decision by the International Commission on the status of names published in 1777 in Scopoli's "Introductio ad Historiam naturalem" : In May 1952 the Commission started to vote (on Voting Paper V.P.(52)59) on the proposal submitted to it

in relation to the status of names published in 1777 in Scopoli's *Introductiō ad Historiam naturalem* to which reference has already been made (paragraph 1) (Hemming, 1951, *Bull. zool. Nomencl.* 6 : 122—125), and at the close of the Prescribed Voting Period it adopted a Ruling that in the foregoing work Scopoli duly applied the principles of binominal nomenclature and therefore that new names published in that work possess rights under the Law of Priority in view of having published therein. This decision has since been embodied in *Opinion* 329 (1954, *Ops. Decls. int. Comm. zool. Nomencl.* 9 : 309—320). This decision had an immediate effect upon the present case, for it established that the generic name *Anguina* Scopoli, 1777, the central name in the present case, is a name possessing rights under the Law of Priority.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

10. Issue of Voting Paper V.P.(54)15 : On 27th February 1954 a Voting Paper (V.P.(54)15) was issued in which the Members of the Commission were invited to vote either for, or against, the proposal “relating to the name *Anguina* Scopoli, 1777, set out on the sheet annexed to the present Voting Paper”. The proposal so set out was that which appears in the Ruling given in the present *Opinion*. Annexed to the foregoing Voting Paper were copies of the documents received from the specialists who had assisted in furnishing advice in the present case.

11. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 27th May 1954.

12. Particulars of the Voting on Voting Paper V.P.(54)15 : The state of the voting on Voting Paper V.P.(54)15 at the close of the Prescribed Voting Period was as follows :—

- (a) *Affirmative Votes had been given by the following nineteen (19) Commissioners (arranged in the order in which Votes were received) :*

Hering ; Holthuis ; Vokes ; Boschma ; Riley ; do Amaral ; Esaki ; Lemche ; Sylvester-Bradley ; Dymond ; Hemming ; Bonnet ; Cabrera ; Mertens ; Pearson ; Jaczewski ; Bradley (J. C.) ; Hankó ; Stoll ;

- (b) *Negative Votes :*

None ;

- (c) *Voting Papers not returned :*

None.

13. Declaration of Result of Vote : On 28th May 1954, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(54)15, signed a Certificate that the Votes cast were as set out in paragraph 12 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

14. Preparation of the ruling given in the present “ Opinion ” : On 6th November 1954 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(54)15.

15. The following are the original references for the names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

Anguillulina Gervais & van Beneden, 1859, *Zool. med.* **2** : 101
Anguina Scopoli, 1777, *Introd. Hist. nat.* : 374
davainii, *Tylenchus*, Bastian, 1865, *Trans. linn. Soc. Lond.* **25**(2) :
(an Invalid Original Spelling for *davainiei*)
tritici, *Vibrio*, Steinbuch, 1799, *Naturforscher* **28** : 251
Tylenchus Bastian, 1865, *Trans. linn. Soc. Lond.* **25**(2) : 82,
83, 94 (an Erroneous Original Spelling for *Tylenchus*)
Tylenchus Bastian, 1865, *Trans. linn. Soc. Lond.* **25**(2) : 125—128

16. The following are the references to the type selections of genera referred to in the Ruling given in the present *Opinion* :—

For *Anguina* Scopoli, 1777 : selection by Chitwood, 1935,
Proc. helminth. Soc. Wash. **2**(1) : 53
For *Tylenchus* Bastian, 1865 : selection by Bastian, 1905, in Stiles
& Hassall, *Bull. U.S. Bur. Anim. Ind.* **79** : 147

17. The acceptance in Ruling (4)(a) given in the present *Opinion* of *Anguillulina* Gervais & van Beneden, 1859, as a junior objective synonym of *Anguina* Scopoli, 1777, rests (a) upon the selection by Baylis & Daubney, 1926 (*Synopsis Fam. Gen. Nemat.* :66) of *Vibrio tritici* Steinbuch, 1799, to be the type species of the genus *Anguillulina* Gervais & van Beneden, 1859, and (b) upon the fact that that species is also the type species, by selection by Chitwood (1935), of the genus *Anguina* Scopoli, 1777.

18. The application dealt with in the present *Opinion* was published in the *Bulletin of Zoological Nomenclature* prior to the establishment of the *Official List of Family-Group Names in Zoology* by the Fourteenth International Congress of Zoology, Copenhagen, 1953. It has not been possible since then to deal with this aspect of the present case. This question is, however, now being examined on a separate File to which the Registered Number Z.N.(G.) 122 has been allotted.

19. At the time of the submission of the application dealt with in the present *Opinion*, the expression prescribed for the second

portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word "trivial" appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.*:21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

20. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

21. The present *Opinion* shall be known as *Opinion Three Hundred and Forty-One (341)* of the International Commission on Zoological Nomenclature.

DONE in London, this Sixth day of November, Nineteen Hundred and Fifty-Four.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

